Amendments to the Claims

1. (currently amended) A method ~~for the preparation of cotton tissue comprising~~ of culturing regenerable non-embryogenic cotton callus tissue or embryogenic cotton tissue comprising culturing said cotton tissue in media under dark lighting conditions of 0 μEinsteins $m^{-2}sec^{-1}$ ~~, limited lighting conditions, or under green light~~.

2. (canceled)

3. (canceled)

4. (canceled)

5. (original) The method of claim 1, wherein the regenerable non-embryogenic cotton callus tissue is derived from hypocotyl, cotyledon, root, petiole, anther, flower, or leaf.

6. (original) The method of claim 5, wherein the regenerable non-embryogenic cotton callus tissue is derived from a hypocotyl.

7. (original) The method of claim 1, wherein the regenerable non-embryogenic cotton callus tissue is transformed.

8. (currently amended) A method ~~for the preparation of embryogenic cotton tissue comprising culturing~~ of inducing embryos from a regenerable non-embryogenic cotton callus tissue comprising culturing said cotton callus tissue in an embryo inducing media containing an amount of an antioxidant selected from the group consisting of activated charcoal, ascorbic acid, citric acid, cysteine hydrochloride, dithiothreitol, glutathione, mercaptoethanol, polyvinylpyrrolidine,

polyvinylpolypyrrolidine, a sulfite salt, or vitamin E sufficient to promote embryogenesis.

9. (canceled)

10. (currently amended) The method of claim ~~9~~8, wherein the antioxidant is ascorbic acid.

11. (original) The method of claim 10, wherein the concentration of the antioxidant in the media is between about 1 mg/L and about 1000 mg/L.

12. (original) The method of claim 11, wherein the concentration of the antioxidant in the media is between about 10 mg/L and 100 mg/L.

13. (original) The method of claim 8, wherein the regenerable non-embryogenic cotton callus tissue is transformed.

14. (currently amended) A method ~~for the preparation of embryogenic cotton tissue comprising~~ of culturing regenerable non-embryogenic cotton callus tissue comprising culturing said cotton callus tissue in media containing an amount of ~~ethylene inhibitor~~ aminoethoxyvinylglycine sufficient to induce the formation of embryogenic cotton callus.

15. (canceled)

16. (canceled)

17. (currently amended) The method of claim ~~16~~14, wherein the concentration of the ~~ethylene inhibitor~~ aminoethoxyvinylglycine in the media is between about 1 mM and about 100 mM.

18. (currently amended) The method of claim 17, wherein the concentration of the ~~ethylene inhibitor~~ aminoethoxyvinylglycine in the media is between about 3 mM and about 10 mM.

19. (currently amended) The method of claim ~~14~~16, wherein the regenerable non-embryogenic cotton callus tissue is transformed.

20. (currently amended) A method ~~for the preparation of embryogenic cotton tissue comprising~~ of culturing transformed regenerable non-embryogenic cotton callus tissue comprising culturing said cotton callus tissue in media containing an antioxidant and an ethylene inhibitor under dark lighting conditions of 0 μEinsteins $m^{-2}sec^{-1}$~~, limited lighting conditions, or under green light~~.

21. (original) The method of claim 20, wherein the ethylene inhibitor is aminoethoxyvinylglycine.

22. (original) The method of claim 20, wherein:
the antioxidant is ascorbic acid; and the ethylene inhibitor is aminoethoxyvinylglycine.

23. (canceled)

24. (canceled)

25. (canceled)

26. (original) The method of claim 20, wherein the regenerable non-embryogenic cotton callus tissue is transformed.

27. (original) The method of claim 20, wherein the regenerable non-embryogenic cotton callus tissue is derived from callus, hypocotyl, cotyledon, root, petiole, anther, or leaf.

28. (currently amended) A method ~~for the preparation of transgenic cotton embryos comprising~~ of culturing transgenic embryogenic cotton tissue comprising culturing said cotton tissue in a media~~, wherein the media~~ that contains a support matrix.

29. (original) The method of claim 28, wherein the support matrix is a silica/alumina chip, cloth, felt, or filter paper.

30. (original) The method of claim 28, wherein the support matrix is filter paper.

31. (currently amended) A method ~~for the preparation~~ of culturing transgenic cotton embryos comprising:
culturing transformed regenerable non-embryogenic cotton callus tissue in media containing an antioxidant and an ethylene inhibitor under dark lighting conditions of 0 μEinsteins $m^{-2}sec^{-1}$~~, limited lighting conditions, or under green light,~~ to produce transgenic embryogenic cotton tissue; and culturing the transgenic embryogenic cotton tissue on a support matrix.

32. (original) The method of claim 31, wherein the ethylene inhibitor is aminoethoxyvinylglycine.

33. (original) The method of claim 31, wherein:
the antioxidant is ascorbic acid; and the ethylene inhibitor is aminoethoxyvinylglycine.

34. (canceled)

35. (original) The method of claim 31, wherein the support matrix is filter paper.

36. (currently amended) A method ~~for the preparation of transgenic cotton embryos comprising~~ of culturing transgenic embryogenic cotton tissue comprising culturing said cotton tissue in media containing an amino acid hydrolysate supplement.

37. (original) The method of claim 36, wherein the concentration of the amino acid supplement in the media is between about 10 mg/L and about 500 mg/L.

38. (original) The method of claim 37, wherein the concentration of the amino acid supplement in the media is between about 50 mg/L and about 150 mg/L

39. (currently amended) A method ~~for the preparation of cotton embryos comprising~~ of
culturing regenerable non-embryogenic cotton callus tissue comprising culturing said cotton callus tissue in media containing an antioxidant and an ethylene inhibitor under dark lighting conditions of 0 μEinsteins $m^{-2}sec^{-1}$ to produce embryogenic cotton tissue; and culturing the embryogenic cotton tissue in media containing a support matrix and an amino acid hydrolysate supplement.

40. (original) The method of claim 39, wherein the ethylene inhibitor is aminoethoxyvinylglycine.

41. (original) The method of claim 39, wherein the antioxidant is ascorbic acid; and the ethylene inhibitor is aminoethoxyvinylglycine.

42. (canceled)

43. (original) The method of claim 39, wherein the support matrix is filter paper.

44. (original) The method of claim 39, wherein the concentration of the amino acid supplement in the media is between about 10 mg/L and about 500 mg/L.

45. (currently amended) A method ~~for the preparation of transgenic cotton embryos comprising~~ of culturing transgenic embryonic cotton tissue comprising culturing said embryogenic cotton tissue under dark lighting conditions of 0 μEinsteins $m^{-2}sec^{-1}$~~, limited lighting conditions, or under green light~~ and wrapped with a sealing material.

46. (canceled)

47. (canceled)

48. (canceled)

49. (currently amended) The method of claim 45, wherein the sealing material is Parafilm M™ .

50. (currently amended) A method ~~for the preparation of cotton embryos comprising~~ of
culturing regenerable non-embryogenic cotton callus tissue comprising culturing said cotton callus tissue in media containing an antioxidant and an ethylene inhibitor under dark lighting conditions of 0 μEinsteins $m^{-2}sec^{-1}$~~, limited lighting conditions, or under green light,~~ to produce embryogenic cotton tissue; and culturing the embryogenic cotton tissue in media containing a support matrix and an amino acid hydrolysate supplement under dark lighting conditions, limited lighting conditions or under green light and wrapped with a sealing material.

51. (original) The method of claim 50, wherein the ethylene inhibitor is aminoethoxyvinylglycine.

52. (original) The method of claim 50, wherein the antioxidant is ascorbic acid; and the ethylene inhibitor is aminoethoxyvinylglycine.

53. (canceled)

54. (original) The method of claim 50, wherein the support matrix is filter paper.

55. (canceled)

56. (canceled)

57. (canceled)

58. (canceled)